

REMARKS

Applicants thank the Examiner for total consideration given the present application. Claims 1-16 are currently pending of which claims 9-16 are new. Claims 3 and 4 have been amended. Claim 1 is independent. Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks.

ALLOWABLE SUBJECT MATTER

Applicants appreciate that claims 4, 6, and 8 are indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

SCOPE OF CLAIMS NOT NARROWED

Applicants respectfully submit that the amendments made to claims 3 and 4 do not add any new matter to the application and they are not narrowing, and are not made for a reason relating to patentability. Specifically, claim 3 has been amended to address mere informal issues by adding "for" before "the plurality" in line 8 of the claim. Claim 4 has amended by deleting "columnar" before "the light" in line 3 of the claim. Accordingly, it is submitted that these amendments do not give rise to estoppel and, in future analysis, claims 3 and 4 are entitled to their full range of equivalents.

35 U.S.C. § 103 REJECTION – AAPA, Mizouchi, Liang

Claims 1-3 and 5 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Prior art figure 12 of Applicant's Admitted Prior Art (hereinafter "AAPA") in view of Mizouchi (US 6,614,597) (hereinafter "Mizouchi"). This rejection is respectfully traversed.

For a Section 103 rejection to be proper, a prima facie case of obviousness must be established. See M.P.E.P. 2142. One requirement to establish prima facie case of obviousness is that the prior art references, when combined, must teach or suggest all claim limitations. See M.P.E.P. 2142; M.P.E.P. 706.02(j). Thus, if the cited references fail to teach or suggest one or more elements, then the rejection is improper and must be withdrawn.

In this instance, it is respectfully submitted that the cited prior art references does not teach each and every limitations of the claims. Specifically, independent claim 1 recites, *inter alia*, "**a pivotable light polarizer arranged between the light source and the liquid crystal light valve**". *Emphasis added*. This claim feature is not found in either of the cited prior art references.

Initially, Applicants note that the Examiner identified Fig. 11 as Applicants' Admitted Prior Art. Applicants respectfully submit that Fig. 11 is not a prior art. Fig. 11 represents a basic constitution of the illumination-optics unit 7 of embodiment 3 which is distinguished from embodiment 1 and 2 of the instant invention (please see specification page 27, lines 11-14). However, Applicants assumes that the Examiner misidentified Fig. 12 as Fig. 11. Therefore, the following response corresponds to Fig. 12 as AAPA.

Fig. 12 of AAPA represents a conventional projector including a light source unit 100; an illumination-optics unit 110; and a projection lens 120 wherein the illumination-optics unit 110

includes an integrator-optics system 111 and a color-separation/color-composition system 109. AAPA further discloses that the integrated-optics system 111 includes a first lens array 112, a second lens array 113, a light shade 114 which acts as a light shutter, a polarization-conversion element array 115, and a superposition lens 116.

Fig. 13 illustrates more detailed descriptions of the second lens array 113, the light shade 114, the polarization-conventional element array 115 and the superposition lens 116.

As acknowledged by the Examiner, AAPA **fails to disclose a pivotable light polarizer arranged between the light source 100 and a liquid crystal light bulb.** AAPA merely discloses that the light shade 114 is arranged between the second lens array 113 and the polarization-conversion element array 115. See specification, page 3, lines 12-15. However, a problem arises when the amount of light is adjusted by the light shade 114 disposed in the vicinity of the light source because changes in colors of illuminated light and projected light becomes unavoidable in adjusting the amount of light. Thus, the image becomes brighter than necessary and the image becomes difficult to be watched. See specification page 4, lines 10-20.

The Examiner imports Mizouchi in order to fulfill the deficiency of AAPA. Applicants respectfully submit that Mizouchi also fails to disclose the above identified claim feature. Mizouchi is directed to an illumination apparatus that can adjust telecentricity of beams on a wafer without reducing the use efficiency of light. In Fig. 1, Mizouchi discloses a light laser source 1, a coherence-reducing optical system 2 for making coherent laser beams for the light source 1 so that a speckle pattern by interference fringes may not be produced on a substrate (or wafer 13). Mizouchi further discloses a beam-shaping optical system 3 that forms beams for the optical system 2 into a desired beam shape wherein an emission angle retention optical device 4

maintains an emission angle even though the beam shifts thereon. Please see col. 4, lines 8-19. In addition, Mizouchi discloses a condensing optical system 5 which condenses the beams from the optical device 4 and directs the beams to a light incident surface 6a of an optical pipe 6 (used for mixing beams). The optical pipe 6 assumes a columnar shape having a cross-section of regular triangle, square, or hexagon to create many virtual light sources while mixing the beams from the condensing optical system 5 through several-time reflections of incident beams at the side surfaces and thereby achieves uniform illuminance distribution on a light emission surface 6b. See col. 4, lines 19-29.

The Examiner relies on the optical pipe 6 to allege that Mizouchi teaches the pivotable light polarizer claimed by the Applicants. Applicants respectfully submit that the Examiner's interpretation of the optical pipe 6 is erroneous. The optical pipe 6 is merely a beam former which is also called an inside reduction pipe optical integrator. It is respectfully submitted that a beam former, e.g., optical pipe 6, merely forms different shapes of beam by mixing laser lights which is different than a pivotable optical polarizer which directs lights in different angles. *Emphasis added.* In addition, Applicants respectfully submit that the optical pipe 6 is not arranged between the light source and the liquid crystal light valve as required by independent claim 1.

Another requirement to establish prima facie case of obviousness is that there must be a suggestion or motivation within the cited reference(s) to modify the reference(s) as proposed in the Office Action. See M.P.E.P. 2143.01. The cited reference must be considered in its entirety. See M.P.E.P. 2141.02. If the proposed modification renders the cited reference unsatisfactory for its intended purpose, then by definition, there is no suggestion or motivation to make the

proposed modification. See M.P.E.P. 2143.01. Thus, if the proposed modification renders the cited reference unsatisfactory for its intended purpose, the rejection must also fail.

In this instance, it is respectfully submitted that the two cited prior art references taken either alone or in combination does not recognize the problem solved by the Applicants' claimed invention and include all the features of independent claim 1 as demonstrated above. More specifically, the Applicants' claimed invention solves the unrecognized problem of adjusting the amount of light in providing images that are not brighter than necessary and is not difficult to view (please see page 4, lines 10-15 of the instant application). In order to solve such problems the claimed invention requires a pivotable optical polarizer be provided in between a light source and the liquid crystal light valve as illustrated in Figs. 1-3 or independent claim 1.

Moreover, it is respectfully submitted that only a person skilled in the art who had access to the present application would be motivated to combine the teachings of the two cited prior art references in order to solve the unrecognized problem disclosed in Applicant's specification. In other words, the only motivation to combine the two cited references in the way suggested in the Office Action is gleaned from the hindsight provided by Applicant's specification.

The Applicants respectfully submit that the Office Action is based upon a selective combination of features found in the two references, and that such selective combining is impermissible. As stated in *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143 (Fed. Cir. 1985), "When prior art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself." It is respectfully submitted that the Office Action cites

AAPA, and then utilizes the present application as a road map to selectively replace various features of AAPA.

The Office Action admits that AAPA **does not** disclose **a pivotable optical polarizer**, but alleges that it would be obvious to combine AAPA with Mizouchi *“to implement the pivot light as taught by Mizouchi into the system of AAPA for producing the claimed invention because this would provide the incident light is illuminated onto as [board] an area as possible of the light incident surface of the optical pipe, so that the light intensity on the light incident surface may be decreased to prevent the glass material from deteriorating”* (see page 3, paragraph 1 of the Office Action. It is respectfully submitted that the rejection of claim 1 is a blatant string of substitutions gleaned from and motivated by the Applicant’s own patent application.

The Office Action has not shown that the prior art provides the teaching or suggestion to make the claimed combination and the reasonable expectation of success. The suggestion to make the claimed combination and the reasonable expectation of success cannot be based on Applicant’s disclosure. Accordingly, it is respectfully submitted that claim 1 is patentable over the impermissible combination of references cited against claim 1.

Therefore, for at least these reasons, claim 1 is distinguishable from the combination of AAPA and Mizouchi. Claims 2-3 and 5 depend from claim 1. Therefore, for at least the reasons stated with respect to claim 1, claims 2-3 and 5 are also distinguishable over the combination of AAPA and Mizouchi. Accordingly, Applicants respectfully request that the rejection of claims 1-3 and 5, based on AAPA and Mizouchi be withdrawn.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Prior art figure 12 of AAPA in view of Liang et al. (US 2003/0206337) (hereinafter “Liang”).

This rejection is respectfully traversed. Claim 7 depends from claim 1. As demonstrated above, AAPA fails to teach or suggest "a pivotable light polarizer" as recited in claim 1. Liang has not been, and indeed cannot be, relied upon to correct at least this deficiency of AAPA. The polarizer 18 of Liang is not a "pivotable optical polarizer". Accordingly, it is respectfully requested to withdraw this rejection.

NEW CLAIMS

Claims 9-16 have been added through this reply. All new claims are believed to be distinguishable over the cited references, individually or in any combination. Claims 9-16 depend from claim 1 directly or indirectly. It has been shown above that the cited references, individually or in combination, may not be relied upon to show at least **"a pivotable light polarizer arranged between the light source and the liquid crystal light valve"** as required by independent claim 1. Therefore, it is respectfully submitted that claims 9-16 are at least allowable by virtue of their dependency from independent claim 1.

CONCLUSION

In view of the above amendment and remarks, applicant believes the pending application is in condition for allowance.

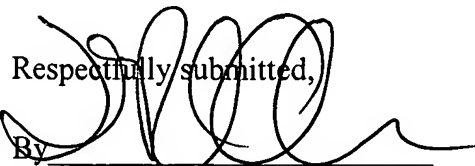
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Ali M. Imam, Reg. No. 58,755 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

.Application No. 10/670,321
Amendment dated November 29, 2006
Reply to Office Action of September 12, 2006

Docket No.: 0925-0207P

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: November 29, 2006

Respectfully submitted,


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